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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/036,027	12/26/2001	Jason C. Lail	C0014	2444
21495	7590	12/31/2003	EXAMINER	
CORNING CABLE SYSTEMS LLC			PAK, SUNG H	
P O BOX 489			ART UNIT	
HICKORY, NC 28603			PAPER NUMBER	
			2874	

DATE MAILED: 12/31/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/036,027

Applicant(s)

LAIL ET AL.

Examiner

Sung H. Pak

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 October 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-21,23-30 and 32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-21,23-30 and 32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Applicants' amendment filed on 10/14/2003 has been entered, and all pending claims have been carefully considered. Claims 1,3-21, 23-30, 32 are now pending.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 3, 5-11 are rejected under 35 U.S.C. 102(e) as being anticipated by Yokokawa et al (US 2001/0043781 A1) as discussed in the previous office action.

Yokokawa et al reference discloses an optical fiber with all the limitations set forth in the claims, including: a cable core having at least optical fiber (paragraph 0029); a ripcord being an electrically conductive material or alternatively a dielectric material (paragraph 0030); the ripcord having sufficient surface roughness so that it does not easily slip out of the buffer tube (paragraph 0032); the ripcord having an excess length (paragraph 0031); the ripcord having a coating thereon (paragraph 0060); the ripcord having a diameter greater than 0.012 inches (paragraph 0030).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 12-13, 15-21, 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yokokawa et al (US 2001/0043781 A1).

Yokokawa et al reference discloses an optical fiber with all the limitations set forth in the claims as discussed above, except it does not explicitly disclose the use of carbon composite ripcord as claimed. However, Carbon fiber materials are well known in the cabling art. Carbon composite materials provide a well known advantage of high tensile strength, light weight and resistance to harsh environmental conditions.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time

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the invention was made to modify Yokokawa et al device to have a carbon composite ripcord.

Regarding claim 32, Yokokawa et al reference discloses an optical fiber with all the limitations set forth in the claims as discussed above, except it does not explicitly teach the use of serrated, knurled or notched rip cord. However, the use of serrated, knurled or notched surface in preventing sliding motion, as taught by Yokokawa et al reference, is well known and common in the art. Such surfaces are desirable in preventing sliding motion. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the rip cord of Yokokawa et al to have serrated, knurled, or notched surface.

Claimss 4, 14, 23-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yokokawa et al (US 2001/0043781 A1) in view of Greveling et al (US 5,970,196).

Yokokawa et al reference discloses an optical fiber with all the limitations set forth in the claims as discussed above, except it does not explicitly teach the use of stranded or helically wound ripcords.

Greveling et al, on the other hand, discloses a ripcord that is helically wound about the axis of the fiber optic cable (column 3 lines 50-53). Such an arrangement provides a well-known advantage of allowing for easy removal of jacket material about the longitudinal axis of the fiber optic cable. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Yokokawa et al device to have stranded or helically wound ripcord.

Response to Arguments

Independent Claim 1 and its dependent claims:

Starting on page 6, paragraph 3 of the applicants' amendment, it is argued that the '781 publication does not teach a rip cord having surface roughness thereon. Specifically, applicants point out that the '781 publication instead teaches controlling the width of the opening to the thickness of the rip cord.

The examiner respectfully points out that surface roughness is an inherent characteristic of any rip cord. The rip cord of '781 reference *exhibits sufficient surface roughness* such that any sliding motion by the rip cord is effectively prevented when the opening of the rip cord containing cavity is narrowed. This feature, in turn, enhances the ripping characteristics of the rip cord because it does not slide out of the cavity. Therefore, '781 reference inherently teaches a rip cord having a surface roughness formed thereon.

Independent claim 12 and its dependent claims:

Starting on page 7, paragraph 3 of the applicants' amendment, it is argued that the '781 publication does not disclose a rip cord having a resistivity being in the range of about 150 micro-ohms per centimeter to about 3000 micro-ohms per centimeter.

As discussed in the previous office action, the use and the advantage of carbon fiber materials is well known in the fiber optic cable art, and its use in the '781 optical fiber cable device is obvious as discussed. Furthermore, the electrical resistivity values

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for carbon fibers range between 150 to 3000 micro-ohms per centimeter (For example, please see *tables 1 and 2* of "Carbon Fibers" by Paul J. Walsh, included in this office action). Therefore, a rip cord having a resistivity being in the range of 150 to 3000 micro-ohms per centimeter is obvious over the '781 reference as discussed. Therefore, the claim rejection based on 35 USC 103(a) is proper.

Independent claim 23 and its dependent claims:

In response to the newly added limitations, a new ground of rejection is furnished in this office action.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

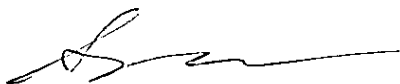
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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sung H. Pak whose telephone number is (703) 308-4880. The examiner can normally be reached on Monday - Thursday : 6:30am-5:00pm.

The fax phone number for the organization where this application or proceeding is assigned is (703) 308-7724.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



Sung H. Pak
Examiner
Art Unit 2874

sp



Rodney Bovernick
Supervisory Patent Examiner
Technology Center 2800